

DEPARTMENT OF EDUCATION

UPPER SECONDARY SCHOOL CERTIFICATE EXAMINATIONS

GEOGRAPHY

Thursday 16 October 2014

Time allowed: 2 hours and 30 minutes (8:00 am - 10:30 am)

NO EXTRA TIME (NO OTHER TIME)

Candidates are advised to fully utilise the allocated time

INSTRUCTIONS TO CANDIDATES

(To be read by the external invigilator to all candidates)

- 1. The subject code for Geography is 13.
- 2. There are **16** printed pages in the question booklet. An electronic answer sheet for part A and **8** paged answer booklet for part B are inserted in the question booklet.
- 3. There are two parts in this paper. Answer all questions.

Part A: Multiple Choice (Questions 1-30) 30 Marks

This part will be electronically marked.

All answers to the Multiple Choice Part MUST be answered on the ELECTRONIC ANSWER SHEET provided.

Carefully following the instructions, fill in your Candidate Information and Subject Information.

If you make a mistake, rub the shading out completely using an eraser and shade in your alternative clearly.

Part B: Short Answer (Questions 31- 40) 70 Marks

Write down your name, your school name and complete your 10 digit candidate number on the Part B Answer Sheet provided.

- 4. You are required to only write the correct answer in the space provided.
- 5. Calculators may be used.
- 6. Answer all questions only on the answer sheet. Answers on any other paper including rough work paper and the question paper will not be marked.
- 7. Correction fluid is <u>not allowed</u> on the answer sheet. Where you have made an error, cross out all the working and start on a new line.

Penalty For Cheating Or Assisting To Cheat In National Examinations Is Non-Certification.

DO NOT TURN OVER THE PAGE

AND DO NOT WRITE

UNTIL YOU ARE TOLD TO START.

PART A:MULTPLE CHOICE(QUESTIONS 1 to 30)30 MARKSAnswer each question by shading in with HB pencil the circle directly below the correctalternative A, B, C or D on the electronic ANSWER SHEET provided.

If you make a mistake, erase the shading completely with an eraser and shade in your alternative clearly.

For Questions 1 to 10 and Questions 31 to 33, refer to the map of Lamington 1: 50,000.

QUESTION 1

| What feature is represe | ented by the symbol at gr | id reference 235276? | |
|--------------------------|---------------------------|----------------------|----------------|
| A. Secondary growth | B. Plantation | C. Rainforest | D. Food garden |
| | | | |
| QUESTION 2 | | | |
| The contour interval for | or the map of Lamington | would be | |
| A. 10 m | B. 100 m | C. 20 m | D. 200 m |

QUESTION 3

What is the approximate straight line distance in kilometers from the lake at 359126 to the other lake at 283120?

| A. | 15.3 | B. 7.7 | C. 1530 | D. 7700 |
|----|------|--------|---------|---------|
| | | | | |

QUESTION 4

Which of the following is the approximate bearing of Asapa Landing Ground from the peak of Mt Lamington?

| A. | 045° | B. 051° | C. 140° | D. 016° |
|----|------|---------|---------|---------|
| | | | | |

QUESTION 5

The dominant vegetation type found 1 kilometer directly west of Boru (136231) is:

A. Plantation B. Secondary growth C. Food garden D. Grassland

QUESTION 6

Which 4-figure grid square reference is Sangara School situated in?

A. 3029 B. 3131 C. 3030 D. 2930

If you are traveling from Koipa to Bumburata, what are some of the likely vegetation that you would find?

- A. savannah, rainforest, grassland and plantation
- B. secondary growth, rainforest, food gardens and plantation
- C. secondary growth, rainforest, grassland and plantation
- D. savannah, grassland, secondary growth and plantation

QUESTION 8

Embala River flows from Mt Lamington to Dapari and all the way towards Kokoda. In what direction does it flow?

| | A. | Southeast | B. Northeast | C. Southwest | D. Northwest |
|--|----|-----------|--------------|--------------|--------------|
|--|----|-----------|--------------|--------------|--------------|

QUESTION 9

What direction is Mt Lamington (275123) from Popondetta town?

| A. | Southeast | B. Northeast | C. Southwest | D. Northwest |
|----|-----------|--------------|--------------|--------------|
|----|-----------|--------------|--------------|--------------|

QUESTION 10

Which 6-figure grid square reference is the bridge at Embala River located?

| | A. 203110 | B. 100203 | C. 110203 | D. 111201 |
|--|-----------|-----------|-----------|-----------|
|--|-----------|-----------|-----------|-----------|

QUESTION 11

Which list below contains only the countries in which winter Olympics could be held?

- A. Republic of South Africa, China, USA and Russia
- B. China, Papua New Guinea, Canada and Russia
- C. Britain, Republic of South Africa, Brazil and Russia
- D. USA, Canada, Japan and Indonesia

QUESTION 12

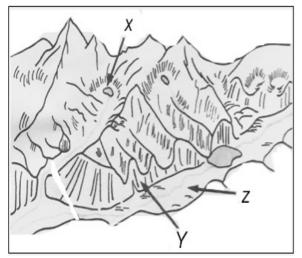
Which of the following countries' population growth is largely influenced by migration into that country rather than a natural increase?

Which of these statements about population and resource is not true?

- A. A large population like China consumes a lot of resources.
- B. A small population like Australia also consumes a lot of resources.
- C. India with over 1 billion people consumes less resource than USA with over 320 million people.
- D. Developed countries consume less resource than developing countries.

QUESTION 14

Study the figure below and answer question 14.



Which list below contains features X, Y and Z respectively in?

- A. Arête, Cirque and Truncated spurs
- B. Horn, Cirque and U-shaped Valley
- C. Cirque, Truncated spurs and U-shaped Valley
- D. Hanging Valley, Horn and U-shaped Valley

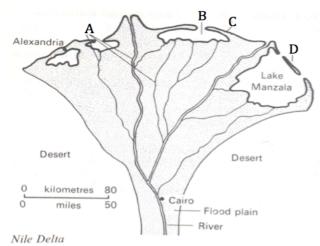
QUESTION 15

Which of these statements is **not** true about tropical deserts.

- A. They have the largest diurnal range.
- B. They contain hydrophytic plants.
- C. Physical weathering by insolation is the main type of weathering.
- D. Deserts have the least cloud cover in the daytime and in the nighttime.

QUESTION 16

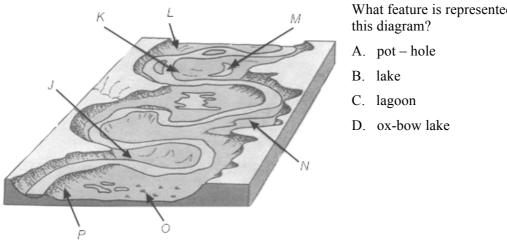
Study the figure below and answer question 16.



Which list below contains features A, B, C and D respectively in the diagram?

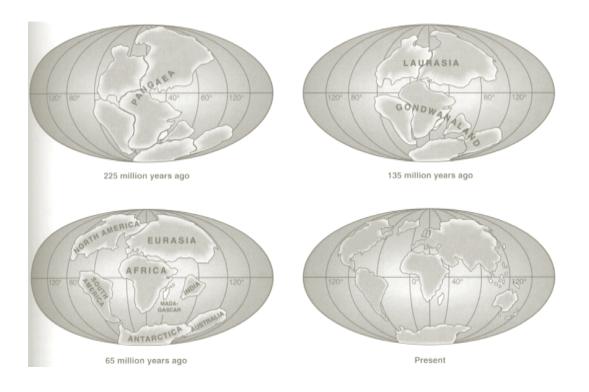
- A. distributaries, lagoon, spit and bar
- B. distributaries, lagoon, bar and spit
- C. spit, distributaries, bar and lagoon
- D. spit, bar, lagoon and distributaries

Study the figure below and answer question 17.



What feature is represented by letter M in

Study the diagram below to answer questions 18 and 19.



QUESTION 18

What geographical theory or idea is the above diagram illustrating?

- A. continental drift
- B. plate tectonics

C. Earth's origin

D. Evolution of species

Which of these is the main cause of what is happening in the diagram above?

- A. global warming B. volcanism
- C. convectional currents D. solar radiation

QUESTION 20

The slope of a lava cone is:

- A. side sloping
- C. steep sloping

QUESTION 21

B. gentle slopingD. flat with no slope

Study the picture below. The picture shows the death of a coniferous forest in Western Europe.

Which of these factors is responsible for the situation shown in the above picture?

- A. shifting cultivation
- B. plantation agriculture
- C. acid deposition through acid rain
- D. deforestation through overgrazing

QUESTION 22

Mauna Loa (Hawaii) is an example of:

| A. lava cone B. ash cone C. | composite cone | D. extinct cone |
|-----------------------------|----------------|-----------------|
| | | |

QUESTION 23

What is a caldera?

| А. | A site of a lake | В. | A magma chamber | C. | An ash cone | D. A cone let |
|----|------------------|----|-----------------|----|-------------|---------------|
|----|------------------|----|-----------------|----|-------------|---------------|

QUESTION 24

Which of the following is a renewable energy?

| Α. | Kutubu Oil | В. | Liquefied Natural Gas (LNG) |
|----|------------|----|-----------------------------|
| C. | Petrol | D. | Hydro – electric power |

Which of these statements is true about Papua New Guinea?

- A. Papua New Guinea has a low dependency load
- B. Papua New Guinea has a high literacy rate compared to Hawaii
- C. Papua New Guinea is sparsely populated
- D. Papua New Guinea is has a lower birth rate compared to Japan

QUESTION 26

The erosive power of strong winds is reduced when:

- A. the soil is not covered by vegetation B. the soil is dry
- C. the soil is wet D. the land is over grazed

For questions 27 and 28, read the newspaper article below to answer these questions.

Manus detainees tell of poor living conditions

Al-Hussainy, giving evidence in Arabic, told the court that Australian Immigration Minister Scott Morrison told him and the other detainees on his visit there that they would never set foot on Australia.

Al-Hussainy said there was no sun and no room to play sport in Delta compound, so people stayed in their rooms. He said he was employed as a bodyguard for a prominent person in Iraq and was forced to flee the country after he was threatened by a terrorist group. The second detainee to give evidence was Abdul Qadir, 22, from Somalia.

He said he fled his country after an attempt on his life. He said his mother was killed in front of him.

Qadir broke down after telling the court that he would like to die because of the kind of treatment they were receiving at the centre.

"I am not a criminal," Qadir said.

The third detainee to give evidence, from Iran, said the detainee who was killed during violence at the centre last month was his roommate.

He said that he had engaged a lawyer from Australia to help him because he did not want to disclose the identities of those involved in the violence last month out of fear.

He told Cannings that he and the other detainees did not feel safe at the centre because they were afraid of being attacked by locals. The fourth detainee to give evidence was Barat Ali from Afghanistan.

The four detainees gave oral evidence yesterday with the assistance of interpreters.

Source: *The National*, March 20th, 2012. Page -3-

QUESTION 27

The asylum seekers at Manus have left their countries because they were

- A. planning to become citizens of PNG
- B. searching for better opportunities in life
- C. planning to spread their religion in PNG
- C. told that PNG is a peaceful country

Apart from returning to their own country of origin after being processed, which of the following countries do the asylum seekers of Manus also have the possibility of being given a residency status?

A. PNG B. Australia C. Indonesia D. New Zealand

QUESTION 29

Which of these is the best location for a factory that would be canning tuna?

- A. Where the markets (buyers) are B. Where the labour market is
- C. Where an energy source is D. On the shore where the tuna is caught

QUESTION 30

Which list contains the two countries with the highest levels of air pollution in their major cities?

- A. Australia and Thailand B. China and Thailand
- C. Pakistan and USA D. China and Great Britain

PART B: SHORT ANSWER (QUESTION 31 to 40) 70 MARKS

Write all the answers to the questions on the Answer Booklet provided.

QUESTION 31

(a) Write down the 4-figure grid square references for:

| i) Mumuni village | (1) |
|------------------------------|-----|
| ii) School at Awala No. 1 | (1) |
| iii) St Christophers Mission | (1) |
| iv) Lake Nu'apa | (1) |

(b) Write down the 6-figure grid square references for:

| i) Binduta village | (1) |
|------------------------|-----|
| ii) Somara village | (1) |
| iii) Hospital at Saiho | (1) |

QUESTION 32

Below are seven grid square references from the map, labeled A, B, C, D, E, F and G: and seven types of social, cultural and economic land uses that can be found on the map.

| Grid references: | А | В | С | D | Е | F | G |
|------------------|------|------|------|------|------|------|------|
| | 1008 | 2119 | 3422 | 1011 | 3021 | 3526 | 3530 |

Identify the grid square from this list in which the following land use types can be found, and write the letter A, B, C, D, E, F and G next to the name of the land use.

| i) Christian Training Centre | (1) |
|------------------------------|-----|
| ii) Evasusu Village | (1) |
| iii) Oval | (1) |
| iv) Lake | (1) |
| v) Rubber Plantation | (1) |
| vi) Baravataru village | (1) |
| vii) Asisi village | (1) |

| i) What is the distance in kilometers from the lake near Mt Lamington (283120) to Higaturu | |
|--|---------|
| Vocational Centre (235240)? | (1) |
| ii) What are the altitudes of these two locations? | |
| a) Urarisusu village | (1) |
| b) Singi village | (1) |
| iii) What is the change in altitude to the nearest 100 m from the lake near Mt Lamington (283) | 120) to |

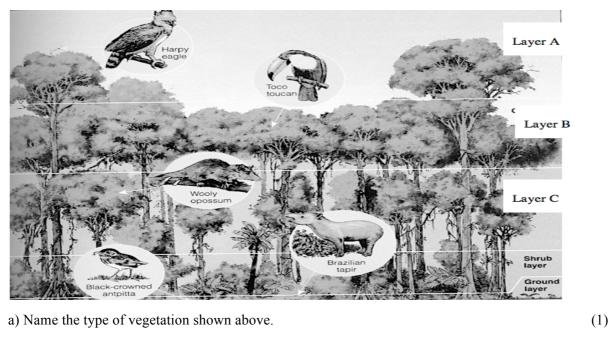
| iii) what is the change in attitude, to the hearest 100 iii, from the lak | te near Wit Lannington (283120) to |
|---|------------------------------------|
| Higaturu Vocational Centre (235240)? | (1) |

iv) Using your answers from (i) and (iii) above, calculate the approximate average gradient from the lake near Mt Lamington to Higaturu Vocational Centre.

(Show your working out) (3)

QUESTION 34

Study the figure below and answer question 34.

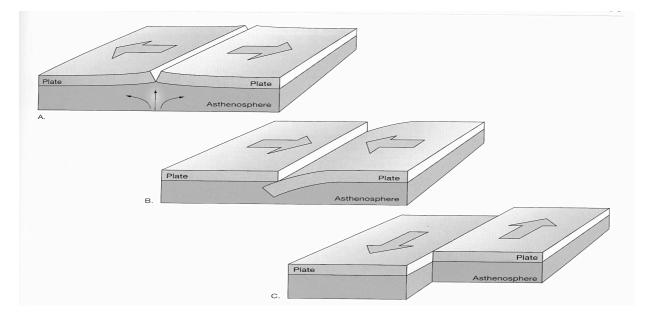


| b) Name the type of climate that supports the vegetation above. | (1) |
|---|-----|
|---|-----|

- c) Name layers A, B and C of the vegetation shown above.
- i) Layer A:(1)ii) Layer B:(1)iii) Layer C:(1)d) State the main reason why the ground layer is very sparsely vegetated?(1)
- e) List the two most suitable adjectives to describe the vegetation and their leaves. (1)

USSCE GG 2014

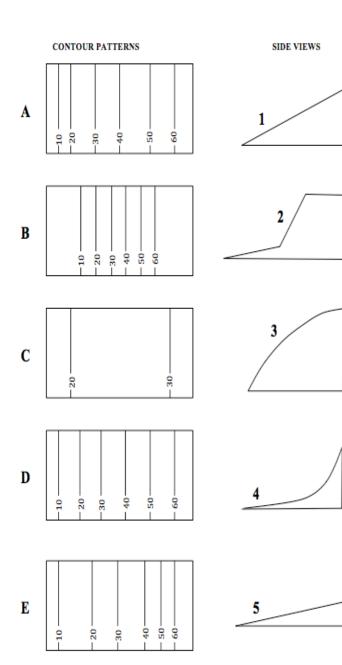
QUESTION 35



a) In plate movement, which diagram (A, B or C) creates a transform fault. (1) b) In diagram B, what type of plate is the plate to the left? Is it a continental plate or an oceanic plate? (1) c) Briefly explain how a mountain range is formed through plate movement. (1) d) The mountain ranges of New Guinea were formed by one of these tectonic plate movements. Which one is it? (1) i) divergence ii) convergence iii) subduction iv) Plates sliding past each other e) Which of the three plate movements above is associated with Fold Mountain and volcanoes? (1) i) Plate Movement A ii) Plate Movement B iii) Plate movement C f) Briefly explain the relationship between plate movement and tsunamis. (1) g) Name one specific natural disaster that occurs on the continental crust when the continental crust moves. (1)

Study the 3 diagrams below and answer the questions that follow.

Study the diagram below and answer the questions below.



a) Match the Contour Patterns with their side view. Write the correct letter A, B, C, D, and E next to the side views numbered 1 - 5.

b) When contour lines are close together, the slope is:

- A. a gentle slope
- B. a steep slope
- C. a concave slope
- D. an even slope

c) The difference in height between one contour line and the next is known as the:

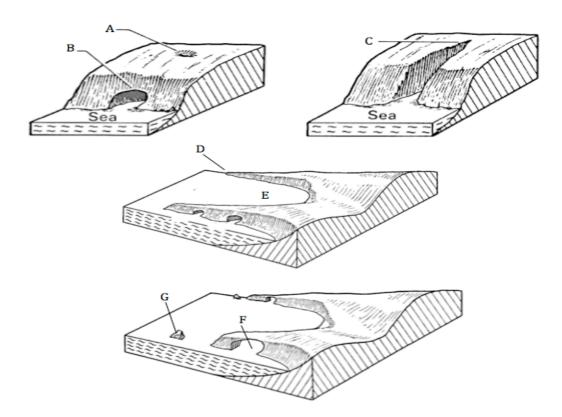
- A. contour interval
- B. gradient
- C. mid contour value
- D. height of the contour

USSCE GG 2014

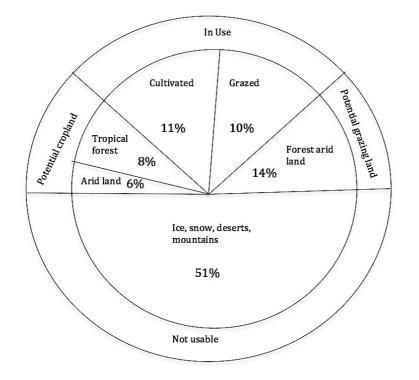
QUESTION 37

Choose one feature from the list of features provided to correctly label the features below.

Erosional features: *delta, blowhole, spit, sand bar, tor, cliff, cave, cirque, inlet, stack, bay, headland, plain, rapids, arch, spur,*



| a) Feature A: | (1) |
|---------------|-----|
| b) Feature B: | (1) |
| c) Feature C: | (1) |
| d) Feature D: | (1) |
| e) Feature E: | (1) |
| f) Feature F: | (1) |
| g) Feature G: | (1) |



The diagram below shows the classification of the earth's land. Use the diagram to answer the questions below.

a) Name the method that can be used to cultivate the arid lands of the earth.

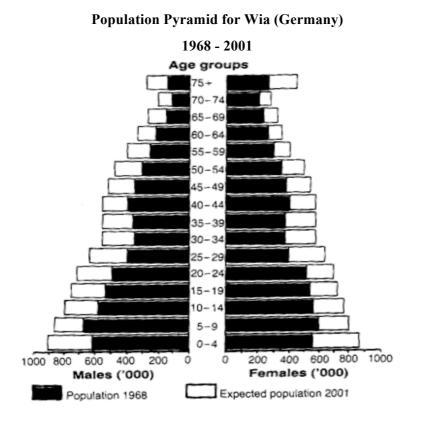
(1)

- b) Papua New Guinea still has a significant amount of its primary rainforest unlike countries like Philippines and Indonesia. What is the single most important reason why PNG still has most of its rainforest? (1)
- c) How would the removal of rainforests affect each of these spheres of the earth? State one effect only for each sphere.

| i) Atmosphere | (1) |
|------------------|-----|
| ii) Lithosphere | (1) |
| iii) Hydrosphere | (1) |
| iv) Biosphere | (1) |

d) Name the environmental condition that can occur to reefs as a result of deforestation upstream. (1)

Study the population pyramid for Wia, 1968 – 2001 and answer the questions below.



- a) How many males were there in the 0 4 age group in 1968? (1)
- b) How many males were expected to be in the 0 4 age group in 2001? (1)
- c) What was the total number of males and females were in the 'over 75' age group in 2001? (1)
- d) Were there more males or females in this age group ('over 75') in 2001? (1)
- e) What effect did the Second World War (1939 -1945) have on the population of Wia? (1)

f) Population pyramids often have 'bulges' and 'dips' in them. Explain the term bulges in your own words. (1)

g) Which of the following may have caused a 'dip'? Underline the best answer.

- A: low birth rate
- B: high birth rate
- C: high dead rate
- D: both A and B

(1)

QUESTION 40

Question 40 is based on the Northern Hemisphere.

Write TRUE or FALSE for each of the statement below.

| a) In the Northern Hemisphere, the northern slope of a mountain is warmer and sunnier than the Southern slope. | (1) |
|---|-----|
| b) In the Northern Hemisphere, winds and ocean currents are depleted to the left. | (1) |
| c) The South westerlies blow in the northern hemisphere from 30°N to 60°N. | (1) |
| d) The Northern Hemisphere has its winter solstice on June 21 st . | (1) |
| e) On September 23 rd , the Northern hemisphere has more than 12 hours of daylight and less than hours of night. | (1) |
| f) The northern hemisphere has more continents and landmasses than the southern hemisphere. | (1) |
| | |

g) The Tropic of Capricorn is located at $23\frac{1}{2}$ ° in the Northern Hemisphere.

END OF EXAMINATION

Write your name, your province and school codes and your candidate number correctly and clearly in the space provided below.

| Ye | ear | Prov | vince | Schoo | 1 | Can | didate | e No |
|----|-----|------|-------|-------|---|-----|--------|------|
| 1 | 4 | | | | | | | |

ANSWERS WRITTEN ON THE QUESTION PAPER OR ANY OTHER PAPER WILL NOT BE MARKED. WRITE ANSWERS NEATLY IN THE SPACES AS PROVIDED IN THIS ANSWER BOOKLET.

FOR MARKERS USE ONLY

| | | Markers' Initials | |
|-------------|-------|-------------------|----|
| | Score | M1 | M2 |
| Question 31 | | | |
| Question 32 | | | |
| Question 33 | | | |
| Question 34 | | | |
| Question 35 | | | |
| Question 36 | | | |
| Question 37 | | | |
| Question 38 | | | |
| Question 39 | | | |
| Question 40 | | | |
| TOTAL | | | |

 $\mathbf{\nabla}$ 01

T B - ANSWER BO(

I

PART: B SHORT ANSWERS

For questions 31 to 33, use the same topographic map of Lamington 1:50 000 to answer these questions.

| QUESTION 31 | |
|--|-----|
| (a) Write down the 4-figure grid square references for | |
| i) Mumuni village | (1) |
| ii) School at Awala No. 1 | (1) |
| iii) St. Christophers Mission | (1) |
| iv) Lake Nu'apa | (1) |
| | |
| (b) Write down the 6-figure grid square references for | |
| i) Binduta village | (1) |
| ii) Somara village | (1) |
| iii) Hospital at Saiho | (1) |
| | |
| | |
| For Markers Use Only Q31 TOTAL | |

| QUESTION 32 | | |
|--|-----------|-----|
| Write the letter next to the name of the land use. | | |
| i) Christian Training Centre | | (1) |
| ii) Evasusu village | | (1) |
| iii) Oval | | (1) |
| iv) Lake | | (1) |
| v) Rubber Plantation | | (1) |
| vi) Baravataru village | | (1) |
| vii) Asisi village | | (1) |
| | | |
| | | |
| For Markers Use Only | Q32 TOTAL | |

| QUESTION 33 | | (1) |
|----------------------|-------------------------|-----|
| i) | | |
| | | |
| | | (1) |
| ii) a) Urarisusu | | (1) |
| b) Singi village | | |
| iii) | | (1) |
| , | | (3) |
| iv) | (show your working out) | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| For Markers Use Only | Q33 TOTAL | |
| - | - | |

| QUESTION 34 | |
|--------------------------------|-----|
| a) | (1) |
| b) | (1) |
| c) i) | (1) |
| ii) | (1) |
| iii) | (1) |
| d) | (1) |
| e) i) | |
| ii) | (1) |
| For Markers Use Only Q34 TOTAL | |
| | |

| QUESTION 35 | | |
|----------------------|-----------|-----|
| | | |
| (a) | _ | (1) |
| (b) | _ | (1) |
| (c) | | (1) |
| (d) | _ | (1) |
| (e) | - | (1) |
| (f) | | (1) |
| (g) | | (1) |
| | | |
| For Markers Use Only | Q35 Total | |

| QUES | TION 36 | | |
|-------|-----------------|-----------|-----|
| | | | |
| (a) | Side view 1 | | (1) |
| | | | |
| | Side view 2 | | (1) |
| | | | |
| | Side view 3 | | (1) |
| | | | |
| | Side view 4 | | (1) |
| | 0.1 . 5 | | (1) |
| | Side view 5 | | (1) |
| (b) | | | (1) |
| (0) | | | (1) |
| (c) | | | (1) |
| | | - | |
| | | | |
| | | | |
| | | | |
| | | | |
| For M | arkers Use Only | Q36 Total | |
| | urners Use Omy | Q50 IOTAL | |

| QUESTION 37 | | |
|----------------------|-----------|-----|
| a) | | (1) |
| b) | | (1) |
| c) | | (1) |
| d) | | (1) |
| e) | | (1) |
| f) | | (1) |
| g) | | (1) |
| For Markers Use Only | Q37 Total | |

| QUESTION 38 | | |
|----------------------|-----------|---|
| | (1 | ` |
| a) | (1) |) |
| | | |
| b) | | |
| | (1) |) |
| c) i) | (1 |) |
| | | |
| | | |
| ii) | (1 |) |
| ii) | | |
| | | |
| | | |
| iii) | | |
| · | (1 |) |
| | | |
| | | |
| iv) | (1 |) |
| | | |
| | | |
| | (1 |) |
| d) | |) |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| For Markers Use Only | Q38 Total | |
| | QUU IUTAL | |
| | | |

| QUESTION 39 | |
|--------------------------------|-----|
| | |
| a | |
| b | (1) |
| c | (1) |
| d | (1) |
| e | (1) |
| f | (1) |
| g | (1) |
| | |
| | (1) |
| For Markers Use Only Q39 TOTAL | |

| QUESTION 40 | | |
|----------------------|-----------|----------|
| a | | |
| b | | (1) |
| c | | (1) |
| d | - | (1) |
| e | - | (1) |
| f | _ | (1) |
| g | _ | (1) |
| | | (1) |
| For Markers Use Only | Q40 TOTAL | <u> </u> |
| | | |